

عنوان مقاله:

Design and thermoeconomic analysis of a PEMFC-TEC cogeneration plant

محل انتشار:

دومین کنفرانس ملی هیدروژن و پیل سوختی (سال: 1391)

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خلاصه مقاله:

Fuel cell systems generate a large amount of heat, so they are considered as an important candidate for CHP systems. However, Proton Exchange Membrane Fuel Cells (PEMFCs) operate in a relatively lower temperature and less pressure compared to those of other fuel cells, and they are not usually considered as a choice for CHP plants. The present research studies the idea of Ocean Thermal Energy Conversion (OTEC), combining it with PEMFC and thermodynamically investigates the e_ect of combin- ing PEMFC with Thermal Energy Conversion (TEC) sys- tem. A .combination of PEMFC and TEC systems (PTEC) leads to a remarkable increase in e ciency of PEMFC

کلمات کلیدی:

Proton Exchange Membrane Fuel Cell, Thermal Energy Conversion, Cogeneration

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